

CLAIMS

1. A lead-acid battery which comprises a positive electrode, a negative electrode, a separator and an electrolyte, wherein:
 - 5 said electrolyte contains volatile organic acid, and a content of said volatile organic acid is equal to 250 mg or higher per liter of said electrolyte.
2. The lead-acid battery according to claim 1, wherein the content of said volatile organic acid is equal to 12 mg or higher per liter of said electrolyte.
3. The lead-acid battery according to claim 1 or 2, wherein said volatile organic acid is one acid or more selected from a group consisting of HCOOH, CH₃COOH, C₂H₅COOH, n-C₃H₇COOH, and iso-C₃H₇COOH.
4. The lead-acid battery according to claim 1 or 2, wherein said separator contains a surfactant.
- 20 5. The lead-acid battery according to claim 1 or 2, wherein said separator is composed of polyethylene.
6. A method of manufacturing a lead-acid battery which comprises a positive electrode, a negative electrode, a separator and an electrolyte, wherein:
 - said separator contains a surfactant, and

5 said method comprises a first step in which said lead-acid battery is container-formed; a second step in which said lead-acid battery is left at 40°C or higher for 12 hours or longer; and a third step in which said lead-acid battery is charge so as to make a charged electrical quantity equal to a rated capacity or larger.

7. A method of manufacturing a lead-acid battery which comprises a positive electrode, a negative electrode, a separator, and an electrolyte, wherein:

10 said separator contains a surfactant, and

 said method comprises a step of leaving said lead-acid battery at 40°C or higher for 12 hours or longer, followed by charging said lead-acid battery with 30% or higher of a theoretical capacity of a positive active material provided in said positive electrode.

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8. The method of manufacturing the lead-acid battery according to claim 6 or 7, wherein said separator is composed of polyethylene.